

Title (en)

Adjustable metering servovalve for a fuel injector

Title (de)

Verstellbares Dosierservoventil eines Einspritzventils

Title (fr)

Soupape de dosage asservie réglable pour un injecteur de carburant

Publication

**EP 1707797 A1 20061004 (EN)**

Application

**EP 05110564 A 20051109**

Priority

- EP 05425151 A 20050314
- EP 05110564 A 20051109

Abstract (en)

The metering servovalve (7) comprises a valve body (8, 30), an open/close element (45) and an electromagnet (15), and is housed in a casing (2) of the injector (1). The electromagnet (15) actuates a mobile armature (16) for a travel defined by a polar surface (19) of the core (18) of the electromagnet (15). This latter is fixed in the casing (2) by means of a threaded ring nut (40), with the interposition of at least one deformable adjustment shim (48). The ring nut (40) is screwed with a pre-set tightening torque on a thread (46) of the casing (2) so as to bring about an elastic deformation of the adjustment shim (48) and to prevent accidental unscrewing of the ring nut (40). The adjustment shim (48) is constituted by a metal ring with a cross section having a shape chosen between L, C, S, Z, and £.

IPC 8 full level

**F02M 59/46** (2006.01)

CPC (source: EP US)

**F02M 47/027** (2013.01 - EP US); **F02M 63/0015** (2013.01 - EP US); **F02M 63/0031** (2013.01 - EP US); **F02M 63/0073** (2013.01 - EP US); **F02M 63/008** (2013.01 - EP US)

Citation (search report)

- [XY] EP 0916843 A1 19990519 - ELASIS SISTEMA RICERCA FIAT [IT]
- [DX] EP 0890730 A2 19990113 - ELASIS SISTEMA RICERCA FIAT [IT]
- [Y] US 5082180 A 19920121 - KUBO KEN-ICHI [JP], et al
- [A] GB 2378985 A 20030226 - BOSCH GMBH ROBERT [DE]
- [A] US 4482094 A 19841113 - KNAPE RICHARD S [US]

Cited by

EP2211046A1; EP2204573A1; CN103291514A; EP2256335A1; US8002206B2; US7497203B2; US9097228B2; WO2009027215A1; WO2008085275A1; WO2010076645A1; US8807116B2; US9140223B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 1707797 A1 20061004**; **EP 1707797 B1 20070822**; JP 2006258098 A 20060928; JP 2010180886 A 20100819; JP 4594251 B2 20101208; US 2006202144 A1 20060914; US 7458529 B2 20081202

DOCDB simple family (application)

**EP 05110564 A 20051109**; JP 2006045314 A 20060222; JP 2010046523 A 20100303; US 35663806 A 20060217